

LOW POWER SOURCE DRIVER FOR LIQUID CRYSTAL DISPLAY

Abstract

Disclosed is a source driver for receiving an input voltage and generating an output voltage to drive a data line in a liquid crystal display apparatus. In the source driver, first and second P-channel MOS transistors are together used as a primary source follower to trace the input voltage thereby eliminating the body effect and keeping the loading charge loss constant. First and second N-channel MOS transistors are used as a secondary source follower. A capacitor is used for boosting the voltage of the drain of the first N-channel MOS transistor on the level of at least the input voltage plus the threshold voltage of the N-channel MOS transistor. In addition, an extra switch is used to reach the accurate output voltage when the output voltage is approaching the input voltage.